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2003

2003 : Faculty of Engineering, Full - Time Courses

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>FACULTY OF ENGINEERING

full-time courses / cúrsaí lánaimseartha

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DUBLIN INSTITUTE *of* TECHNOLOGY




03

DIT
Dublin Institute of Technology
Institiúid Teicneolaíochta Átha Cliath

DIT ACADEMIC CALENDAR - SESSION 2002/2003
NON-SEMESTERISED COURSES

> > > 2002 **Term 1**	
September	
Monday 2nd	Commencement of Session Interviews and enrolments for part-time and evening courses commence
Monday 9th	Commencement of part-time courses in Music & Drama
Monday 16th	1st Year courses commence with the induction programme
Monday 23rd	Second and subsequent years of all whole-time courses commence
	Part-time day and evening courses commence
December	
Friday 20th	Final class meetings of first term
Saturday 21st	Final class meetings for part-time and evening courses in Music & Drama
> > > 2003 **Term 2**	
January	
Monday 13th	Classes resume
April	
Friday 11th	Final class meetings of second term
> > > **Term 3**	
April	
Monday 28th	Classes resume
May	
Friday 9th	Final class meetings of third term
Monday 12th	Examinations commence

Classes are not scheduled on public holidays during the session (viz. 28th October, 17th March; 5th May; 2nd June).

Classes are not scheduled from Monday 23rd December to Friday 10th January inclusive or from Monday 15th April to Friday 26th April inclusive.

Dates for Apprenticeship and CERT related courses differ from the above. Details should be obtained from the relevant Schools/Departments

CONTENTS

FULL - TIME COURSES IN THE FACULTY OF ENGINEERING

HONOURS DEGREE PROGRAMMES

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0 5 NOV 2002
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ORDINARY DEGREE PROGRAMMES

DIPLOMA/CERTIFICATE PROGRAMMES

FOREWORD

Dublin Institute of Technology's principal aim is to provide an individual, high quality service designed to meet the needs of our students. We attribute our success over the last 115 years to this and to the fact that we offer such a wide choice of first-rate, full-time programmes to those who wish to further their education. The Institute boasts highly trained and expert lecturers, specialist learning environments, a wide variety of student facilities and established and innovative collaborative links with industry - all of which benefit the most important people in the Institute - our students. This year, at an Institute wide level, we have reached a number of milestones. A crucial development was the exciting announcement by the Taoiseach, Dr. Bertie Ahern T.D. in April that we have officially been awarded the Grangegorman site, on Dublin's north-side, for our new campus.

Phase one of the €262 million project is estimated to begin in 2003, with completion of all aspects of the first phase expected by 2006. The move to Grangegorman will underpin the Institutes promotion of a new learning paradigm that involves active learning and flexible approaches to programme delivery.

This summer we also launched our Strategic Plan: A Vision for Development 2001-2015. This plan, which will direct DIT over the coming 15 years, will guide us through our greatest opportunities to deliver an outstanding service to you. Both these developments mark the beginning of a new direction for DIT - a direction that will give us broader scope, strength and flexibility to make strides in the very competitive higher-level market.

Third level education is the key to a future full of possibilities. Whether you see it in terms of enhanced career prospects or the pure enjoyment and satisfaction of learning something new, the determination to further your education is always a positive one.

We appreciate the decision of all those students regionally, nationally and from overseas over the past 115 years, who have chosen to further their education by attending DIT. One of the main reasons why they have chosen us is because we tailor our wide variety of programmes to their specific requirements, while providing good facilities and resources of which they can avail.

We want you to get the most out of student life and offer many academic and social opportunities for you to do so. I am in no doubt that studying any one of our full-time courses will help you on the road to a successful future. We look forward to welcoming you to the Institute and wish you every success with your studies.

Dr Brendan Goldsmith
President

INTRODUCTION

The Dublin Institute of Technology offers a wide range of programmes at Certificate, Diploma, Degree and Postgraduate levels and its work and awards have attained national and international recognition by academic, professional, industrial and business organisations. Under the Dublin Institute of Technology Act 1992, it became an autonomous higher education institution in January 1993.

The Institute has played a leading role in the evolution of technical, technological, and business education in Ireland going back over 100 years and it continues to be involved with the latest developments in technology in all areas, maintaining its commitment to industrial, economic and cultural development. The Institute is actively involved in research and development, and meets a growing demand for advisory and consultative services from institutions in Ireland as well as in developing countries.

Today the Dublin Institute of Technology has an enrolment of almost 10,000 full-time students pursuing some eighty programmes covering a wide and diverse range of disciplines. Applicants who require further information should contact the individual schools/departments or:

The Admissions Office, 30 Upper Pembroke Street, Dublin 2.
t 01 402 3445
f 01 402 3392
e admissions@dit.ie
w www.dit.ie

DIT AWARDS

The Institute makes its own awards at Certificate, Diploma, Degree, Masters and PhD levels.

STUDENT LIFE AT DIT

Dublin City, Our Campus

The Institute has seven major centres all located near the city centre and easily accessible by bus and train. Many students find accommodation in the suburbs and can commute easily using Dublin Bus, DART services and other rail commuter services.

Sports enthusiasts can actively participate in a wide variety of activities, both indoor and outdoor throughout the year and for the spectator there is always a Sunday afternoon in Croke Park, or the excitement of a soccer or rugby international in Lansdowne Road. There is also a wide choice in the variety of sporting activities on offer each week-end.

Dublin, with a third-level population of over 50,000 students, is a lively and exciting city with excellent services and amenities and your time here as a student will be an enjoyable and fulfilling experience.

Library and Information Service

There are six constituent libraries within the Institute located at Aungier Street, Bolton Street, Cathal Brugha Street, Kevin Street, Mountjoy Square and Rathmines House. The student DIT ID card also serves as a library card. Hours of opening vary from library to library and according to the time of year. Please check the notices at each library for further information or check the library web site at www.dit.ie/library.

The library currently stocks collections in excess of 200,000 items and subscribes to approximately 1,800 journal titles. The libraries are networked operating the same computer system and share a common database. The entire holdings of the libraries, their locations and current status are displayed on the OPAC (On-line Public Access Catalogue) in each centre. The OPAC may also be accessed via the Internet. The telnet address is "library.dit.ie" and the login is "opac". Registered students may borrow from any of the libraries.

Generally the library provides study places, textbooks, monographs, course materials, reference works and journals both to support the courses offered and to facilitate research. Material may be available in many formats, for example, books, videos, slides, tapes, microforms, CD-ROMs, computer disks, maps and music. Special information tools, indexing and abstracting journals, CD-ROM services, Internet access and on-line searching are available to varying degrees in the libraries. Information not available within the library system may be requested via the inter-library loan service. The Library and Information Service will be a valuable resource for you during your time with DIT. Please feel free to visit

any of the libraries and remember that the library staff are always willing to help if you are unsure where to find the information you want.

Computer Services

The ICT Services Department provides Information and Communications Technology Services to staff and students of the Dublin Institute of Technology. These services include:

- Email
- Internet Connectivity
- Student A/C Services
- E-Learning Infrastructure
- Network & Server Management
- Support Services
- Faculty Planning/Support
- IT Governance
- IT Policy & Procedures

The provision of high-speed access to the Internet and World Wide Web is provided through HEAnet, which is the national Education and Research Internet Service Provider (ISP). Increasingly most of the business of the Institute, be it academic or administrative, is enabled via Technology. The ICT Department is committed to the provision of a professional, efficient and equitable service to the Institute.

Restaurant Facilities

Each of the major DIT centres has restaurant facilities which provide lunches and teas at reasonable prices as well as morning and afternoon snacks in comfortable surroundings.

Careers Service

What you do after college is very important in relation to paving the way for your future career. From the time you enter first year, you will start to develop a range of key skills. In collaboration with academic staff, the careers service aims to enable you to build on this range of skills so that you leave third level education as a rounded graduate with a variety of both technical and work-related skills. The Careers Service is here to help you with this transition from college to working life and provides a programme to ensure that you are capable of devising a strategic career plan, and acquire the necessary skills to ensure your employability.

What is a career strategy?

A career strategy is the formulation of your career aspirations into a flexible plan. It will take into consideration your abilities, personality, interests, lifestyle, ambition as well as the economic climate.

How can we enable you to form a career strategy?

- One to one guidance.
- Opportunities to meet with employers e.g. through career fairs, employer presentations and information on employers that regularly recruit graduates.
- Careers information - we have a well stocked library located in DIT, 30 Upper Pembroke Street which is open every day from 9.30am-1pm and 2pm-5pm with relevant and up-to-date publications.
- We carry out a careers education programme, through collaborative projects aimed at embedding key skills into the curriculum.
- Stand alone modules, which aim to equip you with job search skills e.g. designing CVs, interview skills, introduction to psychometric testing.

Our Careers Service is staffed by six professional career consultants and two administrative staff. Students who would like to discuss personal career issues should make an appointment by contacting the appropriate person below, or by making an appointment through the Students' Union.

Applied Arts
Dave Kilmartin
t 01 402 7500
e dave.kilmartin@dit.ie

Built Environment
Carol Kelehan/Carmel McDonald
t 01 402 7503
e carol.kelehan@dit.ie
e carmel.mcdonald@dit.ie

Business
Laurence Whitson
t 01 402 7501
e laurence.whitson@dit.ie

Engineering
Helen Wright
t 01 402 7505
e helen.wright@dit.ie

Science
Christiane Brennan
t 01 402 7504
e christiane.brennan@dit.ie

Tourism & Food
Jill Barrett
t 01 402 7502
e jill.barrett@dit.ie

Office Administrator
Margaret Daly
t 01 402 3441
e margaret.daly@dit.ie
w www.dit.ie/admin/careers

Student Counselling Service

The DIT counselling service is available to all DIT students. It is staffed by seven counselling psychologists with an office in each of the seven DIT centres. The counselling service aims to help students to identify worries, large or small, that might affect academic and/or personal development.

Essentially the counselling service provides a safe, supportive place where you can come and talk about any issue that might be troubling you. Some of the issues that a student might talk about may be personal/social issues, such as relationship difficulties, managing stress, financial worries, academic problems e.g. concentration problems, test anxiety, etc. You can also come and talk to a counsellor in total confidence about eating disorders, bereavement, sexual identity, alcohol issues, etc.

It is, however, very important to seek help early when difficulties arise, rather than letting them build up over time so that you don't end up like a walking time bomb, ready to explode around examination time! Recognising that you need to talk to someone is not a sign of weakness, nor is it abnormal to go to a counsellor for help. It is just an indication that you have become aware of a need to gain another perspective, and that a counsellor can help you to help yourself. Besides individual counselling the service offers a variety of other services which include:

Learning Skills Services

The learning skills component of the counselling services offers assistance in many skill areas necessary for academic progress, such as note-taking, time management and examination techniques. The academic demands in college can be very different to the demands which you faced in school so developing more sophisticated learning skills is the key to success in college. Students may avail of individual help in this area or participate in any of the workshops that are offered throughout the year.

Testing Services
The counselling service can also administer a wide range of standardised tests including evaluation of study habits and learning approaches, personality and ability tests. So if you would like a little more information about yourself, then the counselling service staff would be glad to assist you.

Stress Management
Feeling stressed out and over anxious is a very common experience for many students. The counselling service offers stress management training which will equip you with the kind of skills and strategies which will help to diffuse that stress.

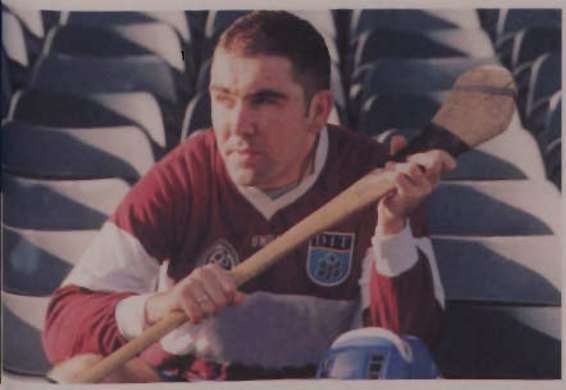
How do you arrange to meet a counsellor?
While the counselling service is based in Fitzwilliam House, there is also an office in every centre, Monday to Friday (please check the Counsellors notice board for details of locations and times). Students can make an appointment by phoning the Secretary of the Service on 402 3352, or by contacting the counsellor directly in the college.

Chaplaincy
The Chaplaincy is an inter-faith ecumenical service which aims to provide support and care for the personal, social and spiritual lives of students and staff and to contribute to a sense of community in the Institute. There is a Chaplain available in each of the DIT centres and you are welcome to call at any time. The Chaplain is there to listen and to offer assistance in the resolution of any difficulties you may encounter during your time in college. S/he can also help you to access the network of student support services in the Institute. You will find opportunities at the Chaplaincy to get involved in some very worthwhile social justice issues or community building projects. You might like to spend some time working with other students in a peer support group, assisting children in local disadvantaged schools, or contributing to one of the many other projects supported by the Chaplaincy. We look forward to meeting you during your time in college.

Access Programme
DIT is committed to increasing the representation of persons from socio-economically disadvantaged backgrounds in the student body. The Institute recognises the prevalence of various impediments that may be faced by such students in reaching their full educational potential. A special programme was piloted in 1999 and officially launched in 2000. Known as LEAP (Lifelong Educational Access Programme), it aims to facilitate greater participation among socio-economically disadvantaged students in education at DIT. The programme features specific measures which address the key areas of access and post – entry supports, and involves a direct application system. Further information may be obtained from the Institute's Access Officer.

Student Services Office
The Student Services Office administers a wide range of services in all of the DIT centres and oversees the distribution and expenditure of the Student Services Fund, which is used to provide finance for welfare and medical services, clubs and societies and the Students' Union.

Student Accommodation Service
The Student Accommodation Service is an information service provided by the Student Services Office in co-operation with the Students' Union. A list is produced showing details of available living accommodation, both self-catering and lodgings. This list may be obtained from the Registration Office or the Students' Union at each centre, or from the



central Student Services Office. The selection of the accommodation, and the terms of agreement or contract, is entirely a matter between the individual student and the householder or owner. Prospective students should note that the Institute does not at present have on-campus accommodation. The DIT Accommodation List includes a substantial number of lodgings (digs) which students might consider, particularly in first year.

Student Assistance Fund
The Student Assistance Fund can provide limited support for **full-time** DIT students who are experiencing temporary or unforeseen financial hardship due to a major change of circumstances, by making grants having regard to the individual's needs. Students will normally be referred to the fund by Student Counsellors, Chaplains, Course Tutors or Students' Union Welfare Officers.

Child Care Support Fund
The Child Care Support Fund is a scheme which may provide a subsidy towards the cost of child care during the academic year to a limited number of **full-time** students who are parents. As these students are usually entitled to some state benefits and allowances, this scheme is means-tested.

Student Personal Accident Insurance
All DIT full-time registered students are covered by a Personal Accident Insurance Scheme. Cover is provided for a wide range of benefits (subject to some exclusions) in respect of certified accidents, whether occurring on DIT premises or otherwise.

Student Health Service
Health centres are located in Aungier Street for the South city DIT centres and in Linenhall (Bolton Street) for the North city DIT centres. The health centres are staffed by nurses whose function is to provide a service for general health treatment and care. Consultation with a doctor in the health centre may be arranged, by appointment, if necessary. This service is free to full-time students. Assistance with the cost of specialist consultations, and with routine dental and ophthalmic treatment is available to needy students. Students should obtain a Medical Card if they are entitled to one. Some centres have on-site First Aid facilities during normal lecture hours. This service is provided in association with the Order of Malta Ambulance Corps.

STUDENT ACTIVITIES

Clubs and Societies
Clubs and Societies are an important, even essential, part of life in any third-level Institute, and there are over 150 Clubs and Societies throughout DIT. All students are encouraged to take part in the activities that interest them, for the social as well as the educational benefits. Being active in any club or society is an excellent way of getting to know other students with similar tastes and interests. Becoming involved in the running of clubs and societies can provide good experience in organisation and management, leadership and teamwork.

Sport and Recreation

Each DIT centre has a Sports Council which organises a wide range of sports, including all of the popular team games, as well as a variety of individual sports. In addition, the DIT Sports Committee, which comprises representatives of all the centres, organises clubs which are open to all DIT students, including Athletics, Basketball, Gaelic games, Judo, Swimming and others.

Cultural and Social

Non-sporting activities are also fully catered for in DIT. Each centre has a Cultural and Social Council which organises a wide variety of clubs and societies, many of which are related to specific courses and provide an extra dimension to the academic content of these courses. In addition, the DIT Cultural and Social Committee, which comprises representatives of all the centres, organises clubs and activities which are open to all DIT students.

DIT Students' Union

This is the representative body for the students of the Institute. It promotes the social and organisational side of student life, including the clubs and societies, and represents the interests of students in college. The Students' Union operates a number of commercial services, including shops, photocopying, the issue of USIT International Student Identity Cards and travel tickets. It also organises lunchtime concerts, discos and other social events.

The Students' Union provides travel and general information as well as financial and welfare advice. In this respect, the Union's officers work closely with the Institute's Student Services Office, Counselling Service and Chaplains.

INFORMATION ON ELIGIBILITY AND SELECTION

1. To be eligible for consideration for a course an applicant must possess the minimum entry requirements for that course.

2. Where a course requirement is 2 or 3 honours, grade C3 or better on Higher Level Leaving Certificate papers is needed to meet such a requirement. (Grade HC or better prior to 1992).

3. Where a specific grade is required in a subject (HC3, OB3 etc.) an applicant must achieve that grade or better in order to be eligible for consideration. (H = Higher Level; O = Ordinary Level).

4. In the case of both Higher and Ordinary level Leaving Certificate results, grades lower than D3 are not acceptable for eligibility purposes or for points calculation.

5. For the purpose of meeting minimum entry requirements, results from any number of sittings of the Irish Leaving Certificate may be combined.

6. An applicant's examination score will be calculated by adding together the points scored in the best six subjects in a single sitting of the Irish Leaving Certificate Examination.

7. Matriculation Examinations will not be accepted either for the purpose of meeting minimum entry requirements or for calculating examination scores.

8. In the case of course FT221 weightings will be applied to certain Leaving Certificate subjects. See course entry in the Faculty of Engineering booklet.

9. Selection for entry to DIT courses will be determined on the basis of examination score except in the case of courses which involve suitability tests, interviews and other assessment procedures. All suitability tests/interviews/auditions will be carried out during the period March-May each year.

10. Demand usually exceeds the number of places available and therefore examination results better than the minimum requirement are likely to be required.

11. When a number of applicants have the same points score, a random number is attached to the score for each course preference. This will then determine the position of each applicant on the waiting lists for offers.

12. At the time of publication, minimum entry points for DIT courses for 2002 were not available. Intending applicants who require this information should write to the DIT Admissions Office and enclose a stamped addressed envelope. This information is also available on our website - www.dit.ie

SUITABILITY TESTS AUDITIONS/INTERVIEWS

Applicants for courses FT101 and DT102 may be required to sit a suitability test which will be used to determine which applicants are called to interview. Applicants who do not meet the required standard in the suitability test will not be called for interview and will not be considered further for the course(s) involved. All applicants for courses FT601, DT603, and DT604 are required to attend an audition /interview which will be used to determine which applicants are short-listed for entrance tests.

Failure to attend a test/audition/ interview, or failure to meet the required standard will result in an application for the courses involved lapsing and the candidate not being considered further for them. All assessments will take place during the period March-May each year.

Precise information on dates and times of tests/auditions/interviews will be notified directly to each applicant. Due to the large number of applicants and the difficulties in scheduling, applicants should be prepared to attend for assessments at short notice during the above period. The Institute cannot make special arrangements for those who do not respond to, or are not available to deal with, correspondence in respect of tests/interviews.

SUBMISSION OF PORTFOLIOS

Applicants for courses FT259, FT544, FT545, FT546, DT515 and DT516 must submit a portfolio of work to DIT Portland Row, Dublin 1, on either Thursday 6th or Friday 7th March 2003 between 9.30 am and 4.40 pm each day. A receipt will be issued stating the date the portfolio must be collected which will be approximately 10 days after submission. The portfolio is used to review the applicant's potential to benefit from, and contribute to, the course(s) chosen with regard to the following evaluation criteria:

1. Evidence of **Drawing** ability should be demonstrated through:
   - examples of freehand, observation and/or technical drawing
   - use of colour and texture
   - variety of subject and media.

2. Evidence of **Practical** ability should be demonstrated through:
   - skills in visualisation (3D and 2D)
   - quality of presentation
   - control over media.

3. Evidence of **Conceptual** ability should be demonstrated through:
   - investigation
   - idea generation
   - imagination and creativity.

A grading system will be used as follows:
- A exceptional
- B very suitable
- C suitable
- D unsuitable

Applicants achieving the grade A in each of the criteria will receive a maximum score of 600 when converted to the 0-600 scale, while an applicant achieving at best the grade C in just one of the categories will receive a score of 67, the minimum deemed suitable for consideration.

In the case of Photography (FT259) a minimum portfolio review score of 333 is required

The portfolio should contain not more than 20 pieces of work made by the applicant, in a range of media. This might include paintings, drawings, sketches, note books, sketch books, collages, photographs and computer outputs (do not submit CDs, zips or floppy discs). Submit only photographs of 3 dimensional or delicate work. Do not submit work that has been framed or mounted behind glass. Please arrange the contents in an orderly and accessible manner in a secure folder. While all care will be taken, the school cannot be held responsible for damage or loss of work during the review process or for portfolios not collected by the due date. Failure to submit a portfolio will render an applicant ineligible for any of the above courses. Portfolios received after the above submission dates will not be reviewed. Portfolios should be securely bound and clearly identified with name, address and CAO number (if available at the time of submission)

The decision of the review panels will be final. **No further communication will issue to applicants regarding the submission or review of portfolios.**

	Higher Level	Grade	Ordinary Level
	100	A1	60
	90	A2	50
	85	B1	45
From	80	B2	40
1992	75	B3	35
	70	C1	30
	65	C2	25
	60	C3	20
	55	D1	15
	50	D2	10
	45	D3	5
	95	A	55
Before	80	B	40
1992	65	C	25
	50	D	10

POINTS SYSTEM FOR ALL COURSES

This table shows the number of points awarded to each grade in the Irish Leaving Certificate Examination.

Course Code	Suitability Test	Interview	Portfolio Review	Audition/ Interview
FT101	100	100		
DT102	100	100		
FT259			600	
FT544			600	
FT545			600	
FT546			600	
DT515			600	
DT516			600	
FT601				100
DT603				100
DT604				100

ASSESSMENTS

This table shows the maximum points allocated for assessment procedures.
The points achieved by applicants who are successful in any of these assessments will be added to their Leaving Certificate points score.

GC(S)E/A LEVEL EXAMINATIONS

ENTRY REQUIREMENTS

Degree	Certificate/Diploma
3 A Levels **or** 2 A Levels **plus** 2 GC(S)E	3 A Levels **or** 2 A Levels **plus** 2 GC(S)E **or** 1 A Level **plus** 4 GC(S)E **or** 6 GC(S)E

POINTS SYSTEM

Grade	A Level	GC(S)E
A	190	55
B	160	40
C	130	25
D	100	10

1. Results from any number of examination sittings may be combined to meet minimum entry requirements.
2. The same subject may be included **only once** in any combination of results (see panel above).
3. All results must be at Grade D or higher.
4. Applicants who meet the minimum entry requirements will be allocated points based on the most favourable of the four combinations of results (see panel above).
5. Points for A level subjects will be calculated on the basis of results achieved in **one academic year.**
6. In addition, applicants must meet minimum entry requirements and full details of the various course requirements are available from the Admissions Office.

INTERNATIONAL BACCALAUREATE

International Baccalaureate Higher Level Grades	Points
7	190
6	160
5	130
4	100

The Dublin Institute of Technology will consider applications from candidates presenting the International Baccalaureate Diploma. Applicants who satisfy the minimum requirements and any special course requirements will be assessed on their performance in their **three best higher level subjects** and will be awarded points as in the table opposite.

FURTHER EDUCATION AND TRAINING AWARDS COUNCIL (FETAC)

The Institute allocates a number of places on full-time third level courses leading to a DIT Certificate award for students who successfully complete relevant Post-Leaving Certificate courses leading to FETAC awards. Applicants presenting these FETAC awards will be assessed on the basis of the results achieved in each module and points will be awarded on the following basis:

Distinction	3 points
Merit	2 points
Pass	1 point

Places will be allocated using the points score accumulated by each applicant. Applicants who do not obtain one of these places may still compete on the basis of the Leaving Certificate results in the normal manner. Full details of the scheme are distributed to Guidance Counsellors in all second level schools and are also available from the Admissions Office.

FOUNDATION LEVEL IRISH

The Institute will not consider Foundation Level Irish for the purposes of entry requirements or for points.

FOUNDATION LEVEL MATHEMATICS

The Institute will accept Foundation Level Mathematics for the purposes of entry requirements **in respect of the following courses only:**

Code	Title
DT515	Design-Display
DT516	Design Technology
DT517	Media Production

Points will not be awarded.

LEAVING CERTIFICATE APPLIED PROGRAMME

The Leaving Certificate Applied Programme will not meet entry requirements and will not be awarded points.

LEAVING CERTIFICATE VOCATIONAL PROGRAMME-LINK MODULES

The Institute recognises the LCVP for admission purposes and results in the Link Modules element of the programme will be considered as follows:

Distinction	50 points
Merit	40 points
Pass	30 points

The Link Modules may be used as one of the six subjects for overall points calculation but will **not be considered as a subject for the purposes of minimum entry requirements.**

RE-ADMISSION

Applicants who have unsuccessfully attended a DIT course **may not re-enter the same course** save in exceptional circumstances. Such applicants must, in the first instance, contact the Admissions Office at 30 Upper Pembroke Street Dublin 2 and obtain a re-admission application form. Completed forms should be returned to the Admissions Office not later than 31 March each year.

HOW TO APPLY

Application for admission to 1st year of any Certificate, Diploma, or Degree course must be made directly to:

Central Applications Office,
Tower House,
Eglinton Street,
Galway.

The application form and handbook are available from CAO. The handbook should be read carefully before submitting an application. Applications can now be submitted to CAO using the Internet. (www.cao.ie).

The closing date for receipt of applications at the ordinary fee for EU applicants is **1st February each year.** Late applications may be made after this date but **not for any of the following courses:**

Degree	Diploma/Cert
FT101	DT102
FT259	DT515
FT544	DT516
FT545	DT603
FT546	DT604
FT601	

The reason for the restriction in the case of the above courses is the inclusion of suitability tests and other assessments as part of the selection process.

These course are marked 'restricted' in the CAO Handbook.

CHOOSING YOUR COURSE

The courses offered by the Dublin Institute of Technology are of their nature career focused and in applying for one or more of them you may be choosing the direction of your career in life as well as in your studies.

The Degree, Diploma, or Certificate awarded on the completion of such a course represents not only an attainment in study but a basic qualification for an occupation with its own special requirements and skills. The course which you follow is likely to give a shape to your career and it is important to make a thoughtful choice among those which you think are best suited to your personality and talents.

The Institute offers certain broad fields of studies and within these fields are courses for related occupations, some traditional, some newer, some specialised and others more general. You will find it to your advantage to consider first the field you would like to enter and then make your assessment of the kind of course and occupation most suitable for you. This means informing yourself about career conditions and opportunities and how your own abilities will match them.

Finding out about courses and careers

There are many sources of information, some of a general nature, some more specific which will help give you an insight into different careers and the related third level courses. Examples include:

- DIT Information Day
- DIT website (www.dit.ie)
- Guidance Counsellors, School Principals, Subject Teachers
- Television Programmes/Radio-Programmes
- Books, Pamphlets, Videos in your School or Public Library
- Careers Exhibitions/Seminars
- The publications of professional institutes and societies such as accountancy bodies, engineering institutions, etc.
- Newspaper Articles
- Open Days.
- Make contact with people of your own acquaintance who are already qualified and working in a job area of interest to you and who can talk with you about their own experiences.

DEFERRED ENTRY

A facility to defer entry for one year is available at present. In order to avail of the facility, an applicant must first be offered a place and then take the following steps:

1. The successful applicant should not accept the place offered.

2. S/he must apply in writing to the Admissions Officer, Dublin Institute of Technology, 30 Upper Pembroke Street, Dublin 2, requesting deferral and giving the reason. The CAO offer notice should be included.

3. The written request must be received in the Admissions Office not later than two days before the closing date for acceptance of places in the particular offer round.

If the request for deferral is granted the applicant will be advised in writing and a place on the course involved will be reserved for him/her for the following year.

If the request is not granted, the applicant will be notified in writing and may then accept the original offer for the current year.

Applicants who are granted deferral will be required to:

(a) submit an application to CAO for the deferred course by 1st February in the following year

(b) include on this application the deferred course as the **first and only** preference

(c) advise the Admissions Office in writing of their new CAO application number by 30 April.

Applicants who do not follow the above instructions will have the deferred place cancelled.

Applicants who request deferral in order to take up another 3rd level course in the CAO system will not be granted deferred entry.

MATURE APPLICANTS

The Institute welcomes applications from Irish and other EU citizens who will be 23 years of age on 1st January of the proposed year of entry and who wish to be admitted as mature students. Already there are almost 300 mature students attending full-time courses in DIT, contributing greatly to the academic and social life of the Institute. Applicants should apply through CAO on or before 1st February each year. **Late applications will not be considered.** Additional information for mature applicants is available from the Admissions Office *t* 01 402 3445.

Mature applicants are not required to meet the normal minimum entry requirements. Consideration for admission to most courses involves an interview and in the case of a small number of courses there will be additional selection procedures including suitability tests, auditions or portfolio submissions.

APPLICANTS WITH DISABILITIES

The Dublin Institute of Technology is an equal opportunities institution and welcomes applications from students with disabilities. The Institute will endeavour to ensure that appropriate facilities are available to allow full access and participation for all students

Applicants who feel that they cannot achieve their full academic potential because of a disability or a significant health difficulty should apply directly to the Institute **in addition** to submitting a CAO application. Application forms for students with disabilities are available from the Admissions Office *t* 01 402 3445 and the Disability Liaison Officer *t* 01 402 7506 and must be submitted **on or before 1st February each year.** Documentation relating to the disability must accompany the application. Applicants are welcome to contact the Disability Liaison Officer to discuss any aspect of their application.

ADVANCED ENTRY

Each year a number of applicants, who already possess third-level qualifications, e.g. National Certificates and/or Diplomas, are admitted to the more advanced stages of Diploma and Degree courses. Typically, those who are qualified at Certificate level may transfer to Diploma courses and those who already hold a Diploma may transfer to a Degree course, provided they have an appropriate educational background and level of achievement which is closely related to the standard of the course for which they have applied. Such students **do not** apply through CAO, but should complete a DIT Advanced Entry Application Form, available on request from the Admissions Office.

The closing date for submission of Advanced Entry Applications is 31 March each year. (1st February in the case of FT101, FT259, FT544, FT545, FT546, FT601, DT515, DT516, DT603, DT604)

APPLICANTS FROM NON-EUROPEAN UNION COUNTRIES

The Institute is happy to consider applications from non-EU nationals who are suitably qualified. Certified translations in English of qualifications and/or examination results must be furnished with each application. Such applicants will also be required to provide evidence of proficiency in English. Application is **not** through the CAO system but must be made directly to the Admissions Office, 30 Upper Pembroke Street, Dublin 2.
The course fee for 2003 for non-EU nationals is €9,000. It will be necessary for non EU-nationals to comply with Irish immigration requirements.

TRADE/CRAFT APPLICANTS

For many of the courses which specify a pass in five subjects in the Leaving Certificate Examination as the entry requirement, the Senior Trade Certificate of the Department of Education and Science with one endorsement in Mathematics or a science subject will satisfy the minimum entry requirement. Students holding this Certificate with three endorsements in academic subjects are eligible for consideration for entry into related degree level courses. Where endorsement subjects are not offered in trade examinations, a pass in an appropriate subject of the Elementary Technological Certificate of the Department of Education and Science is an acceptable equivalent.

FEES

EU Nationals who are first-time undergraduates and resident in an EU state are normally not required to pay tuition fees.

COMPUTER REGULATIONS

Staff and students are required to study and abide by the following codes:

* Regulations Governing the Use of Computer Resources
* Code of Conduct for the Use of Software and Datasets
* HEAnet Acceptable Usage Policy

These codes and other procedures are set out on the DIT Web Site (www.dit.ie) and are detailed under Use of IT and Internet Resources in the Regulations section of the Student Handbook and Diary which is issued to students at registration.

STUDENT REGULATIONS

Applicants who obtain places and subsequently register are required to read and abide by the Student Regulations of the Institute. Copies of the Regulations will be available at registration.

03

FACULTY OF ENGINEERING

BACHELOR OF ENGINEERING TECHNOLOGY

Explanatory Note

The Faculty of Engineering is replacing some of its existing Certificate/Diploma programmes with the ordinary degree of Bachelor of Engineering Technology. These Bachelor of Engineering Technology programmes have a duration of three years. The minimum entry requirements will remain the same for 2003 entry. Students will progress to the following year of the programme upon successful completion of each year.

The Institution of Engineers of Ireland (IEI) gives recognition to this level of award for associate membership of the Institution (AMIEI). This level of membership is recognised internationally through various accords agreed by the professional bodies.

The successful graduate will be qualified to make a significant contribution to the engineering and technological sectors in Ireland and abroad. The programmes are designed to incorporate analytical and practical knowledge of the various disciplines of engineering and technology.

Successful students of these programmes may have the opportunity to progress to the professional degree programmes provided they meet the particular entry requirements of those programmes.

Bachelor of Engineering Technology Degrees

NEW CODE	NEW TITLE	OLD CODE	OLD CERTIFICATE/DIPLOMA TITLE
FT002	Engineering Systems Maintenance	DT125	Technology (Integrated Maintenance)
FT003	Manutronics Automation	DT129	Manutronics Automation
FT004	Civil Engineering	DT126	Civil Engineering
FT005	Building Services Engineering	DT127	Building Services Engineering
FT006	Mechanical Engineering	DT128	Mechanical Engineering
FT007	Automotive Management and Technology	DT150	Transport Engineering/Motor Industry Management
FT008	Electronics and Communications	DT287	Applied Electronics
FT009	Electrical and Control Engineering	DT231	Electrical and Control Engineering

Prospective students should note that our honours degree programmes are outlined on pages 25 to 35. The four year honours engineering degree programmes are fully accredited by the IEI.

ENGINEERING
FT125

degree

Course Description
The Engineering Degree programme is a four year full-time course which prepares students for a career in engineering up to the highest levels of responsibility. FT125 is the common first year of this programme and the final degree is taken in one of the following four options:

FT121 Building Services Engineering
FT122 Mechanical Engineering
FT123 Manufacturing Engineering
FT124 Structural Engineering

A good mathematical and analytical ability is required for all specialities. Students are encouraged to obtain suitable summer employment in the industry to supplement their studies.

Course Outline
Common first year
Mathematics, Mechanics, Physics, Chemistry, Engineering Drawing, Introduction to Engineering and Engineering Applications, Professional Development, Workshop, Laboratory Work, Computing.

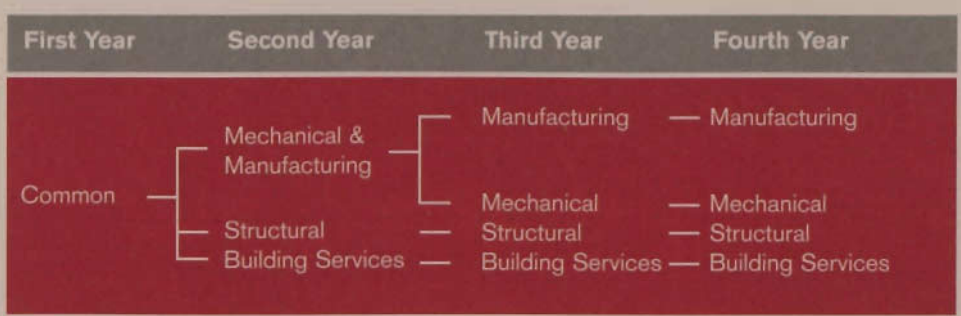
Duration
Four years full-time (one year in FT125 followed by three years in one of the above options).

Location
DIT Bolton Street.

Entry Requirements
Leaving Certificate in six subjects with grade C3 or higher on higher level papers in Mathematics and a suitable science subject (i.e. Physics, Chemistry, Physics and Chemistry, Applied Mathematics, Construction Studies, Engineering) and a pass in four other subjects which must include English or Irish or an equivalent qualification.

Further Information
First year of course: Dr Pat Mc Cormack
Head, Department of Engineering Science and General Studies
t 01 402 3700
e patrick.mccormack@dit.ie

ENGINEERING DEGREE OPTIONS



BUILDING SERVICES ENGINEERING
FT121

degree

Course Outline

Second Year

Mathematics, Fluid Mechanics, Thermodynamics, Electrical Engineering & Electronics, Construction Technology, Engineering Design & Communications, Systems Design Practice, Lighting Design, Fabrication Technology.

Third Year

Mathematics & Engineering Computation, Applied Thermodynamics, Fluid Mechanics, Heating Systems Design, Electrical Power Systems, Heat Transfer in Buildings, Systems Design Practice, Air Conditioning & Ventilation, Refrigeration, Dissertation.

Fourth Year

Computer Modeling and Simulation, Heat & Mass Transfer, Engineering Project Management, Air Conditioning & Ventilation, Fire Engineering, Control Engineering, Facilities Engineering, Energy Management, Acoustics & Vibration, Project.

Award

Bachelor of Engineering (Building Services) of Dublin Institute of Technology with grades of Pass, Lower Second Class Honours, Upper Second Class Honours or First Class Honours.

Graduates are eligible for Membership of the Institution of Engineers of Ireland and are also accepted for entry to appropriate postgraduate courses in Ireland and abroad.

Career Opportunities

The qualification is appropriate to those wishing to make their careers in Building Services Engineering which is concerned with the design and installation of the mechanical and electrical systems necessary to ensure the efficient operation of modern buildings. They form part of the team of professionals involved with construction projects and work closely with Architects, Quantity Surveyors and Structural Engineers. Career opportunities also arise in the fields of Construction Project Management and Facilities Management particularly in the area of modern industrial facilities involving clean room manufacturing, such as in pharmaceutical and electronics production.

Further Information

Mr. Daniel Byrne
Head, Department of Building Services Engineering.
t 01 402 3636

MANUFACTURING ENGINEERING
FT123

degree

Course Outline

There is a common second year for Mechanical and Manufacturing students. At the end of second year students have the option of taking either Mechanical Engineering (FT122/3) or Manufacturing Engineering (FT123/3) in their third year.

Third Year

Mathematics and Computing, Mechanics of Materials, Mechanics of Machines, Control Engineering, Professional Development, Manufacturing Technology, Materials Science, Industrial Engineering, Product Design, Laboratory Work.

Fourth Year

Mathematics and Computing, Control Engineering, Professional Development, Advanced Manufacturing Engineering, Quality and Reliability Engineering, Materials Science, Manufacturing Operations and Laboratory Work. A major project is also undertaken.

Award

Bachelor of Engineering (Manufacturing) of Dublin Institute of Technology with grades of Pass, Lower Second Class Honours, Upper Second Class Honours or First Class Honours.
Graduates are eligible for Membership of the Institution of Engineers of Ireland and are also accepted for entry to appropriate postgraduate courses in Ireland and abroad.

Career Opportunities

The qualification is appropriate to those wishing to specialise in Manufacturing Engineering. Manufacturing Engineers are involved with the manufacture of all types of products ranging from individual items to large batches using robotics and highly automated machines. They may also be involved with the management of projects and industries and with the operation and maintenance of plant and equipment.

Further Information

Mr. Robert Simpson
Head, Department of Manufacturing Engineering.
t 01 402 3823
f 01 402 3626

MECHANICAL ENGINEERING
FT122

degree

Course Outline

There is a common second year for Mechanical and Manufacturing students. At the end of second year students have the option of taking either Mechanical Engineering (FT122/3) or Manufacturing Engineering (FT123/3) in their third year.

Second Year

Mathematics, Electrical and Electronic Engineering, Mechanics, Thermodynamics, Fluid Mechanics, Engineering Design, Engineering Materials, Manufacturing Technology, Professional Development, Automation Systems, Laboratory Work, Computing.

Third Year

Mathematics and Computing, Mechanics of Materials, Mechanics of Machines, Control Engineering, Professional Development, Thermodynamics, Fluid Mechanics, Electrical Engineering, Engineering Design, Laboratory Work.

Fourth Year

Mathematics and Computing, Control Engineering, Mechanics of Materials, Mechanics of Machines, Thermodynamics, Fluid Mechanics, Professional Development and Laboratory Work. A major project is also undertaken.

Award

Bachelor of Engineering (Mechanical) of Dublin Institute of Technology with grades of Pass, Lower Second Class Honours, Upper Second Class Honours or First Class Honours. Graduates are eligible for Membership of the Institution of Engineers of Ireland and are also accepted for entry to appropriate postgraduate courses in Ireland and abroad.

Career Opportunities

The qualification is appropriate to those wishing to specialise in either general Mechanical or Process Engineering. Mechanical Engineers are involved with the design and construction of all types of equipment ranging from individual items to complete factories or process plants. They may also be involved with the management of projects and firms and with the maintenance of plant and equipment.

Further Information

Mr. Neil Gillespie
Head, Department of Mechanical Engineering.
t 01 402 3633/3605

STRUCTURAL ENGINEERING
FT124

degree

Course Description

Students enter the second year of the Structural Engineering Degree following the completion of a common first year course in Engineering (FT125/1) It is expected that students commencing the third year of the Structural Engineering Degree course from September 2003 onwards will be offered a choice of optional subjects in both the third and fourth years of the course.

Course Outline

Second Year

Mathematics and Statistics II, Mechanics of Materials II, Surveying II, Fluid Mechanics II, Concrete and Construction Technology II, Professional Development II, Structural Analysis II, Laboratory Work, Project (surveying), Computing.

Third Year

Mathematics and Computing III, Mechanics of Materials III, Professional Development III, Structural Analysis III, Design of Structures-Concrete, Design of Structures-Steel, Municipal Engineering III, Soil Mechanics III, Laboratory Work, Project (surveying), Computing.

Fourth Year

Mathematics and Computing IV, Mechanics of Materials IV, Professional Development IV, Structural Analysis IV, Design of Structures-Elements, Highway Engineering IV, Design of Structures-Scheme, Laboratory Work, Individual Project, Computing.

Award

Bachelor of Engineering (Structural) of Dublin Institute of Technology with grades of Pass, Lower Second Class Honours, Upper Second Class Honours or First Class Honours. Graduates are eligible for Membership of the Institution of Engineers of Ireland and are also accepted for entry to appropriate postgraduate courses in Ireland and abroad.

Career Opportunities

The qualification is appropriate to those wishing to make their careers in Structural Engineering, which is a specialisation of Civil Engineering. Structural Engineers are concerned with the design and construction of buildings, bridges and special structures. They form part of the team of professionals involved with construction projects and in this way work closely with Architects, Quantity Surveyors and Building Services Engineers. Graduates of Structural Engineering have the prospect of employment with contractors, research organisations, consultants, as well as state and semi-state agencies and local authorities. Some pursue postgraduate studies in Ireland or abroad directly after graduating or they may go abroad to work initially and in this way gain wider or specialised experience.

Further Information

Mr. Joe Kindregan
Head, Department of Civil and Structural Engineering.
t 01 402 3638

COMPUTER ENGINEERING
FT281

degree

Course Description

To maintain and enhance the growth of high technology companies in Ireland it is necessary to address the skill shortages that exist in a number of specific areas of technology. One of the fastest growing areas of technology is Computer Engineering. The Dublin Institute of Technology has designed an Honours degree course to address the shortage of computer engineers. The course combines elements of electronic, software and communications engineering to best fit the rapid convergence occurring in the ICT sector. It includes a significant amount of practical and laboratory work together with lectures and tutorials. A strong emphasis is placed on developing the practical skills and in-depth knowledge required by high technology companies.

Course Outline

First Year

Mathematics, Engineering Mechanics and Materials, Physics, Electronic Systems, Electrical Systems, Software Development, Communications Studies. Language: French/German/Spanish (optional).

Second Year

Mathematics, Communications Studies, Engineer in Society, Digital Electronic Design, Software Development, Operating Systems, Computer Architecture, Digital Communications, Analogue Signal Processing, Signals and Systems. Language: French/German/Spanish (optional).

Third Year

Mathematics, Digital Signal Processing, Digital Communications, Computer Networks, Electromagnetic Field Theory, Software Engineering, Computer Architecture, Business Finance. Language: French/German/Spanish (optional).

Fourth Year

Mathematics, Real Time Operating Systems, Embedded Systems, Distributed Systems, Network Encryption and Security Engineering Project, Computer Hardware Design, Computer Networks, Software Engineering, Wireless Communications Systems, Management and Business Law, DSP Applications, Elective. The final year of the course includes a major practical project, which runs throughout the academic year.

Duration

Four years full-time.

Location

DIT Kevin Street.

Entry Requirements

Passes in six subjects in the Irish Leaving Certificate, including English or Irish, with two subjects at grade C3 or higher on higher level papers, one of which must be in Mathematics *or* such qualification as the Institute may deem equivalent.

Award

Bachelor of Engineering (Computer Engineering) of Dublin Institute of Technology with grades of Pass, Lower Second Class Honours, Upper Second Class Honours or First Class Honours.

The Institute is seeking accreditation for the course by the **Institution of Engineers of Ireland** as satisfying the academic requirements for Corporate Membership of the Institution.

Career Opportunities

Graduates of this course will be competent to take up employment in the areas of computer engineering, software engineering, network engineering, embedded computer systems and mobile communications engineering.

Further Information

Mr. John Dalton, *t* 01 402 4802
School of Electronic & Communications Engineering.
Mr. Christopher Bruce *t* 01 402 4576
w: www.electronics.dit.ie

ELECTRICAL/ELECTRONIC ENGINEERING
FT221 degree

Course Description

This programme is designed for the education of electrical/electronic engineers to an honours degree level. There is a moderate degree of specialisation in one of the following fields:

Power Systems Engineering
Control Engineering
Communication Engineering
Computer Engineering
Management and Marketing

The content of the course includes lectures, tutorials, and where appropriate, practical and laboratory work. The first two and one half years of the course are common to all students. At the beginning of the second stage of the third year students commence their specialist option. It is intended that there should be approximately equal numbers of students in each of the five options. In the first instance option choice will be by student preference; however, priority will be given on the basis of performance in the second year. The fourth year of the programme includes a three-month engineering project commencing in March. Where satisfactory arrangements can be made, this project may be completed externally in industry or in another third level academic institution either in Ireland or abroad. In addition students will have the option of taking a foreign language in each year of the programme.

Course Outline

First Year

Mathematics, Engineering Mechanics and Material, Physics, Electrical Systems, Electronics, Design, Computing, Communication Studies.

Second Year

Mathematics, Electrical Systems, Electronics, Computing, Design, Electrical Machines and Power Systems, Communication Studies and The Engineer in Society.

Third Year

Mathematics, Statistics, Electronics, Business Studies, Computer Systems, Field Theory, Circuits, Signals and Systems, Instrumentation and Measurements, Control and Automation, Communication Systems, Power Systems. In addition, during the second stage of the third year students will study one of the following Major subjects:

- Communications Engineering
- Control Engineering
- Power Systems Engineering
- Computer Engineering
- Management and Marketing

Fourth Year

The core subjects for the final year of the programme are: Mathematics, Business Studies, Electronics, Circuits, Signals and Systems, Computer Systems, the Major subject, and an Engineering Project. Students must also undertake one course from a list of possible option subjects.

Duration

Four years full-time.

Location

DIT Kevin Street.

Entry Requirements

Passes in six subjects in the Irish Leaving Certificate, including English or Irish, with grade C3 or higher on higher level papers in two subjects one of which must be Mathematics or such qualification as the Institute may deem equivalent.

Points for Weighted Subjects

Mathematics, from 1992: A1-150, A2-135, B1-128, B2-120, B3-113, C1-105, C2-98, C3-90. Pre-1992: HA-143, HB-120, HC-98. Physics, Chemistry, Physics and Chemistry, Applied Mathematics, Engineering, from 1992: A1-120, A2-108, B1-102, B2-96, B3-90, C1-84, C2-78, C3-72. Pre-1992: HA-114, HB-96, HC-78.

Award

Bachelor of Engineering (Electrical and Electronic) of Dublin Institute of Technology with grades of Pass, Lower Second Class Honours, Upper Second Class Honours or First Class Honours. The course has been accredited by the **Institution of Engineers of Ireland** as satisfying the academic requirements for **Corporate Membership of the Institution.**

Career Opportunities

Graduates of the course are employed in all areas of electrical/electronic technology, including computer engineering, electronics, telecommunications, control systems and electrical power systems.

Further Information

Mr. M. Farrell
Head
Department of Electrical Engineering
School of Control Systems and Electrical Engineering
t 01 402 4874

PRODUCT DESIGN (SUBJECT TO VALIDATION)
FT001

degree

Course Description

This course is designed for the education of Product Designers to an Honours Degree level. The Dublin Institute of Technology has designed this new Course in response to market demand to produce graduates with the necessary theoretical knowledge and practical skills to work in today's demanding design fields. They will be capable of applying sound engineering principles in order to produce manufacturable designs. They will marry this expertise with innovation and creativity. Engineering and design principles will be supported by imparting knowledge and competence of the world of business and marketing. The course combines the principles of engineering with design, innovation and marketing. It includes a significant amount of appropriate practical and laboratory/studio work together with lectures and tutorials. A strong emphasis is placed throughout the course in developing innovation together with the best practices involved in developing a product.

Course Outline

First Year

CAD and Drawing , Communications, Computers, Electro-technology, Manufacturing and Materials, Applied Mathematics and Science, Introduction to Marketing and Marketing Research, Micro- Economic Theory, Creative Design Fundamentals, Design in Context,
Workshop Skills.

Second Year

Manufacturing and Materials, Applied Mathematics and Science, Applied Creativity and Innovation, Design Tools and Technology, Design for Manufacture, Creativity and Design Innovation, Finite Element Analysis, Studio work and mini-projects, Management & Strategy, Marketing Research Applications.

Third Year

Design Analysis, Design Evaluation, Design for Plastics, Design for Sheet-metal, GDL Technology, Advanced Modeling Techniques, Photo Realism and Motion, Rapid Product Development 1, Innovation and New Product Development, Business Process Management, Legal aspects of Product Design, Design Theory, New Product Design and Development.

Fourth Year

Applied Design 1+2, Design Management, Integrated Design, Product Design and Innovation, Professional Practice, Rapid Product Development 2, Case Studies in Marketing and Product Development. A major project is also undertaken.

Examination and Other Requirements

(a) Students take the Institute's examinations at the end of each session.
(b) Students also complete assignments and practical laboratory work during the session.

Duration

Four years full-time.

Location

DIT Bolton Street (School of Manufacturing Engineering) DIT Mountjoy Square (School of Art, Design & Printing)

Entry Requirements

Applicants will be required to hold the Leaving Certificate with at least grade C3 in two higher level subjects and at least grade D3 in four ordinary or higher level subjects one of which must be Mathematics, or such qualification as the Institute may deem equivalent.

Award

BSc(Product Design) of Dublin Institute of Technology with grades of Pass, Lower Second Class Honours, Upper Second Class Honours or First Class Honours.

Graduates of this programme should have:
A comprehensive understanding of the entire design process (mind to market).
The ability to undertake the design of products across most industry sectors.
An understanding of how to manage the product development process.
The ability to manage innovation and creativity in a business context.
The ability to understand, enable, facilitate and conduct appropriate research.

Career Opportunities
Graduates of this programme should gain employment:
As product designers for the consumer goods and engineering sectors.
As product engineers in manufacturing industry.
As product engineers working as part of multi-disciplinary design teams.
As design managers in manufacturing industry and design consultancy.
Entrepreneurial Graduates of this programme should be capable of establishing their own manufacturing or consultancy businesses.

Further Information

Mr. William Bergin
Head, Department of Applied Technology
School of Manufacturing Engineering
t 01 402 3843 or 01 402 3626

TRANSPORT TECHNOLOGY
FT128

degree

Course Description
This course is designed for those who wish to pursue a career in the transport industry to the highest positions. All areas of transport are covered (road, rail, air and sea) with emphasis on engineering, operational and management aspects of the industry. Progress to successive years of the course will be on the basis of the student's work during the session and success in sessional examinations.

Course Outline
First Year
Technology of Transport, Mathematics, Transport Operations, Transport Economics, Information Technology, Fundamentals of Management, Legal Studies, Professional Development.

Second Year
Technology of Transport, Mathematics, Transport Operations, Transport Marketing, Information Technology, Financial Management, Transport Economics, Professional Development.

Third Year
Technology of Transport, Mathematics, Transport Operations, Information Technology, Financial Management, Human Resource Management, Legal Studies, Professional Development.

Fourth Year
Technology of Transport, Transport Operations and Technology Management, Logistics, Corporate Strategy, Total Quality Management, Dissertation.

Duration
Four years full-time.

Location
DIT Bolton Street.

Entry Requirements
The Irish Leaving Certificate in six subjects at least two of which must be at grade C3 or higher on higher level papers. Mathematics must be at a minimum of grade C3 at ordinary level and Irish or English must also be included *or* an equivalent qualification.
Applicants who wish to be considered for entry to the second year of the course must have at least a merit in a cognate DIT or HETAC/NCEA certificate. Applicants who wish to be considered for entry to the third year of the course must have at least a high merit in a DIT or HETAC/NCEA Diploma or equivalent.
Mature Applicants
Applicants who are at least 23 years of age on the 1st January of the year of entry may apply to join the degree programme. Each applicant will be considered on an individual basis. Academic qualifications, work experience, motivation and overall potential for the programme of study will be evaluated by means of an interview.

Award
BSc (Transport Technology) of Dublin Institute of Technology, with grades of Pass, Lower Second Class Honours, Upper Second Class Honours or First Class Honours.

Career Opportunities
Due to the growth in the transport sector there are now major opportunities for those wishing to make their careers in the transport industry. The Degree in Transport Technology will give graduates the opportunity to gain employment in private, state, and semi-state sectors.

Further Information
Department of Transport Engineering
t 01 402 3605

AUTOMOTIVE MANAGEMENT AND TECHNOLOGY
FT007 (SUBJECT TO VALIDATION) degree

Course Description
The motor industry is one of the most important in the country employing almost 52,000 people. It is also growing at a phenomenal rate and offers a huge range of career opportunities to interested young people. Current employment has risen by 4-5% annually over the past four years. This course is designed to respond to the needs of the motor industry by providing graduates with a degree level qualification. The course offers a unique interdisciplinary approach in which the student can obtain a mix of technology, business and management skills specifically related to the motor industry. The content of the course includes lectures, tutorials, practical and laboratory work. Progress to successive years of the course will be on the basis of the student's work during the session, and success in sessional examinations. A requirement of the course is that students spend 2-3 months of each summer vacation in suitable employment in the automotive industries gaining appropriate experience.

Course Outline
First Year
Automotive Systems Technology
Automotive Science
Mathematics
Automotive Management
Automotive commercial / financial management
Automotive law & legislation
Computer Applications
Professional Development

Second Year
Automotive Systems Technology
Automotive Science
Mathematics
Automotive Operations Management
Automotive commercial / financial management
Automotive law & legislation
Computer Applications
Professional Development

Third Year
Automotive Systems Technology
Automotive Science
Financial Mathematics & Statistics
Automotive Strategic Management
Sales & Marketing Management
Automotive Operations Management
Automotive Software Applications
Professional Development.

Duration
Three years full-time.

Location
DIT Bolton Street.

Entry Requirements
Leaving Certificate with passes in five subjects including Mathematics and English or Irish or an equivalent qualification.

Award
Bachelors Degree, without classification, of Dublin Institute of Technology. (Exact title subject to validation).

Career Opportunities
Graduates of the course have a wide range of career options. Employment prospects are excellent as there is a continuously strong demand for suitably qualified graduates to fill the many technical, administrative, supervisory and management positions available in all sectors of the motor industry.

Futher Information
Mr. Ken Bracken
Assistant Head
Dept of Transport Engineering
t 01 402 3602
f 01 402 3991
e kenneth.bracken@dit.ie

BUILDING SERVICES ENGINEERING
FT005 (SUBJECT TO VALIDATION) degree

Course Description
This three year whole-time programme prepares students for the Bachelor of Engineering Technology [Building Services Engineering] ordinary degree award. The students attend from September until the end of May. Work placement in an appropriate environment during the summer months is encouraged The programme requires an analytical ability to understand and solve technical problems relating to the building services engineering industry. Mechanical and electrical building services such as heating, air-conditioning, ventilation, refrigeration, fire protection, water supply, drainage, lighting, power, data communications are installed in buildings to ensure a comfortable and safe internal environment.

Course Outline
First Year
Engineering Mathematics, Engineering Science, Introduction to Building Services Engineering, Computing & Engineering Graphics, Built Environment, Fabrication Technology and Engineering Communications.

Second Year
Engineering Mathematics, Applied Energy Systems, Applied Electrical Technology, Controls & Instrumentation, Management Studies, Building Services Engineering A, Building Services Engineering B and Projects.

Third Year
Engineering Mathematics, Applied Energy Systems or Unit Operations, Electrical Distribution & Control Systems, Engineering Management, Building Services Engineering A, Building Services Engineering B and a major Project.

Examination and Other Requirements
(a) Students take the Institute's examinations at the end of each session.
(b) Students also complete assignments and practical laboratory work during the session.

Duration
Three years.

Location
DIT Bolton Street.

Minimum Entry Requirements
Leaving Certificate with passes at ordinary level in five subjects including Mathematics and English or Irish or an equivalent qualification

Award
Bachelor of Engineering Technology (Building Services) without classification, of Dublin Institute of Technology.

Recognition by Professional Bodies
Those who have successfully completed the programme are expected to have satisfied the academic requirements for the Associate Membership grade of the Institution of Engineers of Ireland.

Career Opportunities
The qualification is appropriate to those wishing to enter engineering as a Technologist specialising in Building Services Engineering. Building Services Engineers design and install the many mechanical and electrical engineering systems that provide the internal environments in our buildings. Building Services Engineering Technologists complete the detailed designs, prepare the necessary drawings and specifications, supervise and project manage the installation of mechanical and electrical systems in buildings. Graduates have excellent prospects of employment with consulting engineers, contracting firms, equipment suppliers and building managers.

Further Information
Mr. Daniel Byrne
Head, Department of Building Services Engineering
t 01 402 3636

CIVIL ENGINEERING (SUBJECT TO VALIDATION)
FT004 degree

Course Description
This course prepares students for a Bachelor of Engineering Technology award in Civil Engineering at the end of a three year course of study. The students attend the course from September until the end of May each year and they are encouraged to spend the summer months gaining practical experience in appropriate civil and structural engineering design offices or construction sites. The course requires an analytical ability to understand and solve technical problems. At the end of first year, students will have the option of selecting either a structural engineering option or a civil/environmental engineering option.

Course Outline
First Year
Mathematics and Computation, Structural Mechanics, Science, CAD/Graphics, Building Technology and Geology, Engineering Communications and Practice, Introduction to Civil Engineering.

Second Year
Core
Mathematics and Computation, Surveying, Engineering Communications and Practice, CAD/Graphics, Project.

Structural Option
Structural Mechanics, Structural Steel/Concrete Design.

Civil/Environmental Option
Highways and Transportation I, Water/ Environmental Engineering I.

Third Year
Core
Mathematics and Computation, Management Studies, Soil Mechanics, Main Project.

Structural Option
Structural Analysis, Structural Steel/ Concrete Design 2.

Civil/Environmental Option
Highway and Transportation 2, Water/ Environmental Engineering 2.

Examination and Other Requirements
a) Students take the Institute's examinations at the end of each session.
(b) Students also complete assignments and practical laboratory work during the session.

Duration
Three years full-time.

Location
DIT Bolton Street.

Entry Requirements
Leaving Certificate with passes in five subjects including Mathematics and English or Irish or an equivalent qualification.

Award
Bachelor of Engineering Technology (Civil Engineering), without classification, of Dublin Institute of Technology.

Recognition by professional Bodies
Those who successfully complete this course meet the Technician Engineer academic requirements of the Institution of Engineers of Ireland and may qualify for the Associateship grade of membership after they have completed a suitable period of practical training.

Career Opportunities
The qualification is appropriate to those wishing to enter engineering as a Technologist specialising in Civil Engineering/ Structural Engineering/Environmental Engineering. Civil Engineering Technicians may be involved in the design and construction of buildings, bridges, roads, water supply, waste disposal, sanitary services. Graduates have prospects of

employment in contracting firms, engineering design offices, state and semi-state bodies, and research organisations engaged in civil engineering work.
Some students may continue their studies to professional degree level.

Further Information
Mr. Joe Kindregan
Head, Department of
Civil & Structural Engineering
t 01 402 3638

ELECTRICAL AND CONTROL ENGINEERING
FT009 (SUBJECT TO VALIDATION) degree

Course Description
In its early stages this programme covers a broad range of topics in modern Electrical Engineering; the student is then offered the choice of one of two streams - either Control Systems and Automation or Electrical Energy Systems. In addition to this choice of specialization, there are a number of option courses available in the programme to allow the student to build on his or her own preferences.

Graduates of this programme who achieve good honours results are eligible to apply for entry to either the third year of the honours Degree programme in Electrical and Electronic Engineering (Ref. FT221) or to Part II of the part-time Degree in Electrical Engineering (Ref. K235). Holders of the B Eng Tech will be eligible for Associate Membership of the Institution of Engineers of Ireland (AMIEI) and, after a period of industrial or other appropriate experience, may apply for transfer to Associate Engineer Membership (AEng AMIEI) of that Institution.

Course Outline
First Year
Core subjects: Mathematics, Engineering Science, Computer Applications, Communication Skills and Personal Development, Electrical and Electronic Systems, Engineering Practice.
Option: one subject from a group including Language, Cultural Studies and Mechanical Workshop Practice.

Second Year
Core subjects: Mathematics, Electrical Science, Industrial Computing, Communications and Industrial Electronics.
Major option: Either Control Systems and Automation or Electrical Energy Systems.

Option: one subject from a group including Language, Cultural Studies and Mechanical Building Services.

Third Year
Core subjects: Industrial Electronics, Business Studies, Engineering Project.
Major option: Either Control Systems and Automation or Electrical Energy Systems as taken in Year 2.
Options: two subjects from a group including Electrical Building Services, Machines and Drives, Embedded Systems, Language, Circuits and Systems, Electrical Energy Systems, Control Systems.
Note: Students may not select their Major option subject from the second option group.

Duration
Three years full-time.

Location
DIT Kevin Street.

Entry Requirements
Irish Leaving Certificate in five subjects including at least grade D3 in Ordinary level English or Irish and at least grade B3 in Ordinary level Mathematics.

Award
Bachelor of Engineering Technology (Electrical and Control), without classification, of Dublin Institute of Technology.

Career Opportunities
This is a broadly based course with graduates taking employment in a wide range of activities such as Industrial Electronics, Automation and Control, Computing and Electrical Services.

Further Information
Dr. J.C. Fisher
Head, School of Control Systems
and Electrical Engineering.
t 01 402 4551
e jonathan.fisher@dit.ie

ELECTRONICS AND COMMUNICATIONS
FT008 (SUBJECT TO VALIDATION) degree

Course Description
The programme is intended to prepare students for challenging careers in Electronic and Communications Engineering in areas such as design support, development and production. The programme has a particular focus on Communications Engineering, particularly in the latter years.

Communications technology is one of the most sophisticated and rapidly changing application areas of electronics. It now pervades the daily lives of every person, through mass communication networks, as well as person-to-person communications based on fixed and wireless networks. A good example is the Internet which has grown in size exponentially in the last few years and has driven developments in a wide range of communications technologies. Communications also now involves a wide range of information, not just voice, but data, multimedia and video.

The industry is ideally suited to this country depending as it does on knowledge and skills rather than material resources. A pre-requisite for continued growth is the availability of well-qualified and highly motivated graduates. This programme is designed to produce graduates of the highest calibre to meet this demand.

Graduates of the programme who achieve a high average mark in the final examinations are eligible for transfer into the honours degree four year programmes in Computer Engineering (FT281) and Electrical/Electronic Engineering (FT221).

Course Outline
First Year
The subjects studied in the first year are: Mathematics, Electric Circuits and Analogue Electronics, Computing, Communications Systems, Digital Electronics, Electrical Engineering Science. There is also a Project Activity which develops a range of valuable practical skills.

Second Year
Mathematics, Analogue Electronics, Software Design, Digital Communications Engineering, Digital Electronics and VLSI, Signals and Systems, Microcomputer Systems.

Third Year
Mathematics, Analogue Electronics, Software Design, Communications Systems, Business. Students also undertake an engineering project in the third year, which gives them a valuable insight into the solution of real-world engineering problems.

Students are required to choose one optional course in the third year. The typical courses available are Further Mathematics, System Implementation, Digital System Integration, IC Fabrication, Wireless Systems, Digital Signal Processing.

All of the technical subjects in the three years of the programme include a range of assessed laboratory activities, designed to enhance the knowledge and skills of the students.

Duration
Three years full-time.

Location
DIT Kevin Street.

Entry Requirements
A pass in five subjects in the Irish Leaving Certificate examination, one of which must be English or Irish, with at least grade B3 in ordinary level Mathematics, or a qualification which the Institute deems to be equivalent.

Award

Bachelor of Engineering Technology (Electronics and Communications), without classification, of Dublin Institute of Technology.

Career Opportunities

A wide range of career opportunities is available in the communications industry and related areas.

Further Information

Dr. Mark Davis
t 01 402 4797

Dr. Gerald Farrell
t 01 402 4577

School of Electronics and Communications Engineering
w www.electronics.dit.ie

ENGINEERING SYSTEMS MAINTENANCE
FT002 (SUBJECT TO VALIDATION) degree

Course Description
This course prepares students for a Bachelor of Engineering Technology (Engineering Systems Maintenance) at the end of three years. The students attend from September until the end of May each year. Work placement in an appropriate industrial environment during the summer months is encouraged as this will provide a practical experience to augment the academic learning.

Course Outline
First Year
- Mathematics
- Engineering Materials & Science
- Mechanical Maintenance
  - (1) Principles of Power Transmission
  - (2) Maintenance Organisation
  - (3) Workshop Practice
- Computer Applications PLC & Communications
- Electrical Maintenance
- Cabling Systems
- Electrical Service Plant.

Second Year
- Mathematics
- Mechanical Maintenance
  - (1) Principles of Power Transmission
  - (2) Maintenance Strategy & Systems
  - (3) System Diagnostics
  - (4) Plant Operations
- Electrical Maintenance
- Cabling Systems
- Electrical Service Plant
- Science & Thermal & Fluid Plant
- CAD, PLC & Professional Development.

Third Year
- Mechatronics & RAMS
- Electrical Maintenance
- Cabling Systems
- Electrical Service Plant
- Science, Metrology, Quality
- Environmental Plant Services & Business Studies
- Project.

Examination and Other Requirements
(a) Students take the Institute's examinations at the end of each session.
(b) Students also complete assignments and practical laboratory work during the session.

Duration
Three years full time.

Location
DIT Bolton Street.

Entry Requirements
Leaving Certificate, with passes in five subjects including Mathematics and English or Irish. National Craft Certificate or an equivalent qualification.

Award
Bachelor of Engineering Technology (Engineering Systems Maintenance) without classification, of Dublin Institute of Technology.
Recognition by professional bodies Those who have successfully completed the Degree may be eligible to become an Associate member of the Institution of Engineers of Ireland after they have completed a suitable period of practical industrial training and have gained appropriate experience.

Career Opportunities
Following graduation there are opportunities for graduates to take up employment in many areas of industrial maintenance. These areas include Machine and Plant Maintenance; Testing, Monitoring, Inspection, Diagnostics, Trouble-shooting and Installation of Machine Components; Planned and Preventative Maintenance Programmes. Typical areas of employment are manufacturing industries, process industries, pharmaceutical and chemical industries, hospitals, state and semi-state agencies.

Further Information
Mr William Bergin,
Head, Department of Applied Technology.
t 01 402 3626 / 3843

MANUTRONICS AUTOMATION (SUBJECT TO VALIDATION) FT003 degree

Course Description

The course is designed to address the shortfall in multidisciplinary technologists in the manufacturing industry and to produce graduates skilled in working with computer information systems and modern automation equipment in an electronics manufacturing environment. The course is concerned with the operation of production systems, which involves the integration of mechanical, manufacturing, electrical and electronic systems with computer technology at all levels in automation and manufacturing.
The course is also concerned with achieving technological integration of topics and involves aspects of organisation and management. The core focus is to produce an individual for working with hybrid electromechanical systems operation under programmed control.
Work placement in an appropriate industrial environment during the summer months is encouraged.

Course Outline

First Year
Mathematics, Mechanical Systems, Electronic Systems, Electrical Systems, Manufacturing Systems, Manufacturing Technology, Communications Studies, CAD and Information Technology.

Second Year
Mathematics, Mechatronics, Automation Systems, Manufacturing Systems, Communications Studies, CAD & Information Technology, Project.

Third Year
Mathematics, Manufacturing and Quality Systems, Mechatronics, Systems Integration, Management and Finance, CAD & Information Technology, Project. The final year of the course includes a major practical project which runs throughout the academic year.

Examinations and Other Requirements
a) Students take the Institute's examinations at the end of each session.
(b) Students also complete assignments and practical laboratory work during the session.

Duration

Three years full-time.

Location

DIT Bolton Street.

Entry Requirements

Leaving Certificate with passes in five subjects including Mathematics and English or Irish or an equivalent qualification.

Award

Bachelor of Engineering Technology (Manutronics Automation) without classification, of Dublin Institute of Technology

Recognition by Professional Bodies
Those who qualify with a Bachelor of Engineering Technology meet the Technician Engineer level requirement of the Institution of Engineers of Ireland and can qualify for the Associateship grade of membership after they have completed a suitable period of practical training.

Career Opportunities

This qualification is appropriate to those wishing to take up employment in the manufacturing sector as high calibre technicians. The graduates will be competent in the areas of electronic manufacture, automation, as well as systems integration.

Further Information

Mr. Robert Simpson
Head, Department of Manufacturing Engineering
t 01 402 3823
f 01 402 3626

MECHANICAL ENGINEERING (SUBJECT TO VALIDATION)
FT006 degree

Course Description
This three year whole-time programme prepares students for the Bachelor of Engineering Technology [Mechanical Engineering] ordinary degree award. At the start of the third year students will be offered a choice of two options:-
Manufacturing Technology
Process Plant Technology.

Course Outline
First Year
Engineering Mathematics; Integrated Principles of Technology; Mechanics & Materials; Professional Development; Computer Applications; Instrumentation; Engineering Drawing; Workshop Processes.

Second Year
Engineering Mathematics; Design & Materials; Computer Applications; Professional Development; Manufacturing Technology; Control & Instrumentation; Energy Systems Technology; Mechanics; Electrical Technology & Electronics.

Third Year (Common Core)
Engineering Mathematics; Mechanics & Materials; Computer Applications; Control Systems & Instrumentation; Electrical Technology & Electronics; Professional Development; Project.

Process Plant Technology Electives
Process Systems Analysis; Unit Operations; Energy Systems Applications.

Manufacturing Technology Electives
Manufacturing Management; Product Design; Manufacturing Methods.

Examination and other Requirements
(a) Students take the Institute's examinations at the end of each session.
(b) Students also complete assignments and practical laboratory work during the session.

Duration
Three years.

Location
DIT Bolton Street.

Entry Requirements
Leaving Certificate with passes at ordinary level in five subjects including Mathematics and English or Irish or an equivalent qualification. The entry requirements are under review.

Award
Bachelor of Engineering Technology (Mechanical Engineering) without classification, of Dublin Institute of Technology

Recognition by Professional Bodies
Those who have successfully completed the programme are expected to satisfy the academic requirements for the Associate Membership grade of the Institution of Engineers of Ireland.

Career Opportunities
The qualification is appropriate to those wishing to enter engineering as a technologist/technician specialising in either Process Plant technology or Manufacturing Technology. Mechanical Engineering technologists are involved in the design, manufacture and installation of all types of plant and equipment ranging in size from small individual components to complete factories or process plants. Graduates have excellent prospects of employment with manufacturing or processing firms, research organisations, consulting engineers and state and semi-state agencies.

Further Information
Mr. Neil Gillespie,
Head, Department of Mechanical Engineering
t 01 402 3633 or 01 402 3605

ELECTRICAL SERVICES ENGINEERING
DT244 certificate/diploma

Course Description
This is a three-year full-time course designed to prepare students for careers as Electrical Services Engineering Technicians. The course has been designed in close consultation with the Electrical Services Industry. Students will become computer literate and will also develop expertise in the technical areas necessary to use software packages for electrical design. The course will provide a wide knowledge base, which will enable the student to specialise in different areas of interest such as the following: lighting design; emergency services design; data cabling; standby power systems; industrial automation; electrical distribution design; project management; building services and environmental control. The weekly class contact of 26 hours is broken down to 50% lectures and 50% laboratory. Ten hours of self-study is recommended per week.

Course Outline
First year: Engineering Mathematics, Professional Development, Electrical Science, Electrical Services Theory, Environmental and Safety Engineering, Engineering Science, Industrial Automation, Computer Applications, Computer Aided Drawing (AutoCAD).

Second year: Engineering Mathematics, Professional Development/Career Management, Electrical Services Plant, Industrial Automation, Electrical Services Design, Building Services, Communications/Project Management, Services Design Project.

Third year: Engineering Mathematics, Environmental Engineering, Project Management, Electrical Services Plant and Commissioning, Electrical Services Design, Building Services, Industrial Automation, Project.

Examinations
Assessment will be by a combination of written exam held in May/June and continuous assessment of assignments/course work. 50% of the course marks are awarded by continuous assessment.

Duration
2/3 years.

Location
Kevin Street.

Entry requirements
Leaving Certificate with passes in five subjects at ordinary level, including Mathematics and English or Irish or an equivalent qualification.

Award
Certificate/Diploma in Electrical Services Engineering of Dublin Institute of Technology. The awards are terminal qualifications in their own right. However, on successful completion, it will be possible to transfer to higher level courses within DIT and other third level institutions if desired.

Career Opportunities
Electrical Services Technicians enjoy a very varied, interesting and well-paid work environment in areas such as an electrical design office for a consulting engineer, as engineering systems support in the manufacturing sector, technical sales support, project management, or in the provision of industrial services. The work invariably involves both office based and site/location activity.

Further Information
Kevin O'Connell, (Course Director)
Department of Electrical Services Engineering
t 01 402 4630
e kevin.oconnell@dit.ie
w www.dit.ie

ELECTRONIC AND COMPUTER SYSTEMS
DT280 diploma

Course Description
The Diploma Programme in Electronic and Computer Systems is a one-year programme of study. It is designed to provide graduates of certificate-level courses, or persons with equivalent qualifications, with an opportunity to pursue their studies to diploma level. This technician programme has a strong systems perspective, which is intended to develop the student's knowledge and technical abilities in the areas of Computer, Communications and Industrial Electronic Systems. The programme is divided into core and elective courses together with a foreign language option. *This diploma programme is also offered on a part-time basis (one day and one evening per week) over a two year period of study.*

Course Outline
The programme is centred on five core courses namely:
> Microprocessors & Embedded Systems;
> Software Development;
> Mathematics;
> Statistics;
> Business Studies.

All students also undertake a technical project.

Four elective courses are offered namely:
> Instrumentation & Automatic Test Systems;
> Process Control Systems;
> Communications Networks;
> Analogue & Digital Communications.

Students are required to study two elective courses.

Duration
One year.

Location
DIT Kevin Street.

Entry Requirements
A technician certificate qualification in electronics, or related discipline, from a recognised institute with at least a Merit grade, or a qualification which is deemed by the Dublin Institute of Technology to be an equivalent qualification. Non-standard applicants may be interviewed.

Award
Diploma in Electronic and Computer Systems of Dublin Institute of Technology.

Career Opportunities
The programme is designed to produce graduates of high calibre to meet the needs of the Irish and European electronics, communications and computer engineering sectors. As a consequence the career opportunities are very broad. At the present time the manufacturing and service industries are experiencing a shortage of technician personnel particularly in the Information, Communications and Technology (ICT) area.

Further Information
Mr. Christopher Bruce
t 01 402 4576
f 01 475 6669
e christopher.bruce@dit.ie
w www.electronics.dit.ie

ELECTRONIC AND COMPUTER SYSTEMS
DT289 certificate

Course Description
The course is designed to provide a broadly based education in the fundamental principles and practice of electronic engineering at a level appropriate to the electronic technician seeking to obtain employment in the production, test and service sectors of the electronics, communications or computer industry. The programme orientation is essentially practical with emphasis on the development of software and hardware diagnostic and fault-finding skills.
However, an appropriate mathematical and engineering science foundation is incorporated to ensure that students wishing to extend their studies at some future date will be enabled to do so.

Course Outline
First Year
Mathematics, Engineering Science, Electric Circuits and Devices, Electronic Components and Practice, Electronic Workshop, Electronic Systems, Communications Skills, Computer Systems and CAD Applications.

Second Year
Mathematics, Electronic Systems, Technical Project, Personal Computers and Networking Technologies, Data Communications, Microcomputer Systems, Software Systems and Business Environment.

Duration
Two years full-time.

Location
DIT Kevin Street.

Entry Requirements
Irish Leaving Certificate in five subjects which must include Mathematics with a minimum of grade C3 at Ordinary level, and English or Irish or the Senior Trade Certificate of the Department of Education and Science with one endorsement in Mathematics or a science subject. Where endorsement subjects are not offered in the trade examinations, a pass in an appropriate subject of the Elementary Technological Certificate Examinations of the Department of Education and Science will be an acceptable equivalent *or* such qualification as the Institute may deem equivalent.

Award
Certificate in Electronic and Computer Systems of Dublin Institute of Technology.

Career Opportunities
Graduates of the course are qualified to take up employment as technicians across the spectrum of the electronics, telecommunications and computer industries in the production, service and applications sectors.

Further Information
Mr. Michael Tully,
t 01 402 4790 or
Mr. Christopher Bruce,
t 01 402 4576
e christopher.bruce@dit.ie
School of Electronic and Communications Engineering
w www.electronics.dit.ie

PRELIMINARY ENGINEERING
DT120

Course Description
This course prepares students for entry into the first year of the Engineering Degree course (FT125). It is suitable for students who have not satisfied the FT125 entry requirements in terms of higher level Mathematics or an appropriate science subject.
Successful applicants will be required to pay a course fee of approximately €1,700.
The free fees scheme does not apply to this course.

Course Outline
Mathematics, Mechanics, Physics, Chemistry, Introduction to Engineering and Engineering Materials, Engineering Drawing, Communication Studies, Computing.

Examination Requirements
Students are required to take the College examination at the end of the session, to present laboratory notebooks and to complete project work reports/assessments to the satisfaction of the host Department.

Duration
One year.

Location
DIT Bolton Street.

Entry Requirements
Leaving Certificate with passes in five subjects including Mathematics and English or Irish *or* an equivalent qualification.

College Examination. A clear pass in the college examination and assessments entitles the student to enter the FT125 course.

Further Information
Dr. Pat Mc Cormack
Head
Department of Engineering Science and General Studies
t 01 402 4039
e patrick.mccormack@dit.ie

Course Title	Code	Duration [Years]	Places 2002	Entry Requirements [Irish Leaving Certificate]					Faculty
				Minimum number of Subjects	Honours	Minimum grade in Maths	English or Irish	Other subject requirements [See Key]	
Design – Interior + Furniture Ω	FT544	4	25	6	2				Applied Arts
Design – Visual Communication Ω	FT545	4	25	6	2				Applied Arts
Early Childhood Care and Education	FT472	3	44	6	2	OD3	OD3		Applied Arts
Fine Art Ω	FT546	4	30	6	2				Applied Arts
Journalism Studies with a Language	FT353	4	30	6	2		HC3	B	Applied Arts
Media Arts	FT352	4	35	6	2		HC3	T	Applied Arts
Music Δ	FT601	4	40	6	2	OD3	OD3		Applied Arts
Photography Ω	FT259	4	25	6	2				Applied Arts
Printing Management	FT130	4	36	6	2				Applied Arts
Social Care	FT471	4	44	6	2	OD3	OD3		Applied Arts
International Business and Languages [English]	FT258	4	20	Contact Faculty for details					Applied Arts/Business
International Business and Languages [French]	FT255	4	20	6	2	OD3	OD3	F	Applied Arts/Business
International Business and Languages [German]	FT256	4	20	6	2	OD3	OD3	F	Applied Arts/Business
International Business and Languages [Spanish]	FT257	4	20	6	2	OD3	OD3	F	Applied Arts/Business
Management and Law [Evening programme]	FT359	4	50	6	2				Applied Arts/Business
Architecture *	FT101	5	46	6	2	OD3	OD3		Built Environment
Construction Economics and Management	FT111	4	45	6	2	OD3	OD3		Built Environment
Geomatics	FT112	4	35	6	2	OB3	OD3		Built Environment
Planning and Environmental Management	FT116	4	40	6	2		OD3		Built Environment
Property Economics [Valuation Surveying]	FT110	4	45	6	2	OD3	OD3		Built Environment
Business Studies	FT351	4	120	6	2	OD3	OD3		Business
Information Systems Development	FT354	4	40	6	2	OB1	OB2		Business
Management and Marketing	FT542	4	70	6	2	OC3	OD3		Business
Marketing	FT541	4	95	6	3	OC3	OC3		Business
Retail and Services Management	FT543	4	40	6	2	OC3	OC3		Business
Transport and Logistics	FT358	4	40	6	2	OD3	OD3		Business
Automotive Technology & Management *	FT007	3	64	5		OD3	OD3		Engineering
Building Services Engineering *	FT005	3	45	5		OD3	OD3		Engineering
Civil Engineering *	FT004	3	60	5		OD3	OD3		Engineering

Computer Engineering	*FT281*	*4*	*40*	*6*	*2*	*HC3*	*OD3*		*Engineering*
Electrical & Control Systems *	*FT009*	*3*	*50*	*5*		*OB3*	*OD3*		*Engineering*
Electrical/Electronic Engineering †	FT221	4	80	6	2	HC3	OD3		Engineering
Electronics & Communications *	FT008	3	40	5		OD3	OD3		Engineering
Engineering Options: Building Services; Mechanical; Manufacturing; Structural	FT125	4	90	6	2	HC3	OD3	A	Engineering
Engineering Systems Maintenance *	FT002	3	30	5		OD3	OD3		Engineering
Manutronics Automation *	FT003	3	50	5		OD3	OD3		Engineering
Mechanical Engineering *	FT006	3	60	5		OD3	OD3		Engineering
Product Design	FT001	4	New	6	2	OD3			Eng/App Arts
Transport Technology	FT128	4	64	6	2	OB3	OD3		Engineering
Biomedical Science	FT214	5	36	6	2	OC3	OD3	E	Science
Computer Science	FT228	4	50	6	2	OC3	OD3		Science
Clinical Measurement	FT229	4	25	6	2	OB3	OD3	O	Science
Forensic & Environmental Science	FT213	4	25	6	2	OB3	OD3	E	Science
Human Nutrition and Dietetics	FT223	4	20	6	3	OD3	OD3		Science
Optometry	FT224	4	25	6	2	OB3	OB3	E	Science
Physics Technology	FT222	4	New	6	2	OB3	OD3	C	Science
Culinary Arts	FT403	4	48	6	2	OC3	OD3	G	Tourism and Food
Environmental Health	FT491	4	45	6	2	OC3	OD3	E	Tourism and Food
Food Technology/Pharmaceutical Technology	FT480	4	45	6	2	OD3	OD3	E	Tourism and Food
Hospitality [Hotel & Catering] Management	FT401	4	64	6	2	OC3	OD3	G	Tourism and Food
Leisure Management	FT404	3	32	5		OD3	OD3	M	Tourism and Food
Tourism Marketing	FT402	4	32	6	2	OC3	OD3	H	Tourism and Food

DEGREE COURSES

A At least Higher level C3 in one of: Physics, Chemistry, Physics and Chemistry, Applied Mathematics, Construction Studies or Engineering.

B At least Higher level C3 in Irish or French or German

C At least Higher level C3 in one of: Mathematics, Applied Mathematics, Physics, Chemistry, Physics and Chemistry, Biology, Agricultural Science, Engineering or Technical Drawing.

E At least Higher level C3 in one of: Physics, Chemistry, Physics and Chemistry or Biology.

F At least Higher level C1 in two subjects one of which must be French (for FT255), German (for FT256) or Spanish (for FT257).

G At least Ordinary level C3 in French or German or Spanish.

H At least Ordinary level C3 in one of Irish, French, German or Spanish.

M At least Ordinary level D3 in French or German or Irish.

O At least Higher level C3 in one of: Mathematics, Applied Mathematics, Physics, Chemistry, Physics and Chemistry, Biology, Agricultural Science, Engineering.

T At least Higher level C3 in Irish or French.

Selection

* Applicants must attend a suitability test in March.

† Weighted subjects (see Engineering Faculty booklet).

Ω Applicants must submit a portfolio on 6th or 7th of March.

Δ Applicants must attend an audition/interview in March/April.

° Ordinary Degree (Bachelor of Engineering Technology)

Course Title	Code	Duration [Years]	Award	Places 2002	Entry Requirements [Irish Leaving Certificate]					Faculty
					Minimum number of Subjects	Honours	Minimum grade in Maths	English or Irish	Other subject requirements [See Key]	
Design – Display Ω	DT515	2	Certificate	30	5					Applied Arts
Design Technology Ω	DT516	2	Certificate	25	5					Applied Arts
Media Production ø	DT517	2	Certificate	25	5					Applied Arts
Music Foundation Δ	DT604	1		25	5		OD3	OD3		Applied Arts
Social Care Practice ø	DT467	3	Diploma	44	5			OD3		Applied Arts
Speech and Drama Studies Δ	DT603	3	Diploma	25	5	2		OD3+		Applied Arts
Architectural Technology *	DT102	3	Diploma	50	5		OD3	OD3		Built Environment
Auctioneering, Valuation and Estate Agency ø	DT116	2/3	Cert/Dip	45	5		OD3	OD3		Built Environment
Buildings Maintenance Technician	DT171	2	Certificate	40	5		OD3	OD3		Built Environment
Construction Technology ø	DT114	2/3	Cert/Dip	40	5		OD3	OD3		Built Environment
Business Management ø	DT521	2	Certificate	70	5		OD3	OD3		Business
Business Studies ø	DT315	2	Certificate	125	5		OD3	OD3		Business
Marketing ø	DT503	2	Certificate	40	5		OD3	OD3		Business
Retail Enterprise Management ø	DT523	2	Certificate	40	5		OD3	OD3		Business
Retail Marketing ø	DT522	2	Certificate	30	5		OD3	OD3		Business
Security Management ø	DT525	2	Certificate	50	5		OD3	OD3		Business

Electrical Services Engineering Technician ø	DT244	2/3	Cert/Dip	50	5		OD3	OD3		Engineering
Preliminary Engineering ø	DT120	1		50	5		OD3	OD3		Engineering
Electronic and Computer Systems ø	DT289	2	Certificate	40	5		OC3	OD3		Engineering
Applied Science ø	DT273	3	Diploma	100	5		OC3	OD3		Science
Computer Science ø	DT266	3	Diploma	50	6	2	OB3	OD3		Science
Baking Technology and Management	DT200	3	Diploma	26	5		OD3	OD3		Tourism and Food
Business Studies – Bar Management	DT541	2	Certificate	60	5		OD3	OD3		Tourism and Food
Culinary Arts [Catering for Health]	DT444	2	Certificate	48	5		OD3	OD3		Tourism and Food
Food Technology/Pharmaceutical Technology ø	DT490	3	Diploma	45	6		OD3	OD3	S	Tourism and Food
Hotel and Catering Management ø	DT402	3	Diploma	80	5		OD3	OD3	Q	Tourism and Food
Hotel and Catering Supervision ø	DT440	2	Certificate	32	5		OD3	OD3		Tourism and Food
Travel and Tourism	DT410	2	Certificate	30	5		OD3	OD3	R	Tourism and Food

DIPLOMA/CERTIFICATE COURSES

Q At least Ordinary level D3 in French or German or Spanish.
R At least Ordinary level C3 in French or German or Spanish.
S At least Ordinary level D3 in one of: Physics, Chemistry, Physics and Chemistry or Biology.

Selection

* Applicants must attend a suitability test in March.
Ω Applicants must submit a portfolio on 6th or 7th of March.
Δ Applicants must attend an audition/interview in March/April.

\+ Irish does not meet the language requirement.
ø Opportunities are available for continuing studies to Diploma/Degree.

03

Dublin Institute of Technology

Adelaide Road, Dublin 2	t 01 402 3000	f 01 402 3555
Aungier Street, Dublin 2	t 01 402 3000	f 01 402 3003
Bolton Street, Dublin 1	t 01 402 3000	f 01 402 3999
Cathal Brugha Street, Dublin 1	t 01 402 3000	f 01 402 4499
Kevin Street, Dublin 8	t 01 402 3000	f 01 402 4999
Mountjoy Square, Dublin 1	t 01 402 3000	f 01 402 4299
Rathmines Road, Dublin 6	t 01 402 3000	f 01 402 3487

Admissions Office, Fitzwilliam House, 30 Upper Pembroke Street, Dublin 2
t 01 402 3445 f 01 402 3392 e admissions@dit.ie w www.dit.ie